AIR FORCE ENERGY PROGRAM
PROCEDURAL MEMORANDUM (AFEPPM) 04-1
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AIR FORCE ENERGY OFFICE

AIR FORCE ENERGY MANAGEMENT PLAN

This memorandum is the implementation plan for Air Force philosophy, organizational, relationships, responsibilities, and procedures for implementing and managing the Air Force Energy Program. AFEPPM 96-1, Air Force Energy Management Plan is revised.

1. Applicability. This plan applies to all Air Force activities and installations in regards to implementing programs to meet energy and water use goals and objectives set by Public Laws, Executive Orders, and the Department of Defense (DOD).

2. Background. The Air Force energy management program supports implementation of the long-term National Energy Strategy to further an energy future that is secure, efficient, and environmentally sound. The energy future requires all Air Force personnel to pursue new and smarter ideas for implementing management strategies designed to meet the assigned goals by fiscal years 2005, and 2010. The Air Force program is a coordinated effort that encompasses all functional areas and applies to all aspects of mission operations and support.

2.1. **Directive Guidance.** The Energy Policy Act of 1992 (Public Law 102-486) and Executive Order (EO) 13123, dated 3 June 1999, established energy goals through FY2010. Public Law 102-486 adds water conservation to the energy program. Energy goals codified under the National Defense Authorization Act of FY2002.

2.2. **Reducing Import Dependence.** The United States' use of crude oil in the 1990s increased our reliance on imported foreign crude oil to over 50 percent, up from just over 31 percent in 1985. This increased demand, coupled with the instability in the Persian Gulf region and industrial expansion worldwide makes it clear that the need for an effective energy program is just as important now as it was during the oil crises of the 1970s. Air Force efforts must strive to minimize petroleum use in facilities and vehicles while improving energy efficiency and life-cycle cost-effectiveness. While great strides in energy conservation have been made in past years, a. renewed commitment to energy conservation and energy efficiency is needed to reduce this growing dependency on foreign crude oil. Everyone must now commit to including energy efficiency practices into their way of doing business and invent innovative methods to conserve energy. The Air Force must manage energy resources to ensure that energy reduction goals are met or exceeded.

2.3. **Energy Conservation Program Resources.** Money is a key factor in the implementation of energy conservation programs. The financial resources available to the Air Force in the 2000s will be considerably less than those of the 1980s and 1990s. The pressures of budget and force reductions, while maintaining a high readiness posture, make further conservation of energy a necessity. Our challenge is to use the available funding wisely to support initiatives that both improve energy efficiency and reduce consumption.

2.4. **Support of Air Force Environmental Goals.** Reducing energy consumption is directly linked to the United States' commitment to be the world leader in environmental quality. The need to protect our environment provides further incentive for the Air Force to conserve energy. Energy conservation is a

win-win scenario. We save both energy and money while still preserving the nation's security and protecting the environment. This goal only requires change, not sacrifice.

3. Air Force Energy Program Goals and Objectives.

3.1. **Air Force Energy Program Goals.** The Air Force energy program is structured to achieve the reduction goals mandated by The Energy Policy Act of 1992 (Public Law 102-486) and Executive Order (EO) 13123 and codified by the Department of Defense Authorization Act of 2001

3.2. **Air Force Energy Program Objectives.** The primary program objective is to meet or exceed mandated reduction goals without degrading military readiness, safety, and mission effectiveness or quality of life. This will be accomplished by implementing management actions, investing in energy conservation technology and equipment, and creating information and recognition programs to create energy conservation and management awareness throughout the Air Force.

3.2.1. Increase Energy Efficiency in all Energy-Use Areas. This objective will be achieved by research and development programs for more efficient fuels and more efficient engines for aircraft and vehicles, through purchase of energy efficient equipment and parts, improved facilities operations and maintenance programs and, most importantly, by implementing effective user-oriented energy conservation awareness programs.

3.2.2. Reduce Energy Used by the Mobility Forces. Mobility fuel energy consumption should be targeted for reduction but only when the reduction can be achieved without degrading capability. Programs to reduce consumption, exclusive of tactical operations, may be implemented after a complete evaluation by commands involved.

3.2.3. Use Alternative Energy: Consider the most life cycle, cost-effective energy conservation alternatives for facilities and operations. Reduce use of petroleum fuels and convert to alternative fuel sources such as bio-diesel and ethanol when economical (note: sometimes public law or executive orders require conversion to alternative fuels irrespective of economic benefits). Alternative energy sources include solar, wind, geo-thermal, biomass, hydrogen and hydropower.

3.3. **Energy Plan Strategy.** The program developed by the Air Force to support energy program objectives covers two broad areas - mobility operations (including aircraft and vehicle operations) and installation operations. The Air Force uses energy awareness to keep all personnel focused on energy conservation and reducing energy costs.

4.0. **Air Force Energy Management Organization and Responsibilities.** HQ USAF is responsible for overall program management, and establishes goals and policies and provides general guidelines. The MAJCOMs, FOAs, and DRUs are responsible for policy execution and compliance. HQ USAF is also responsible for coordinating with the Secretary of Defense staff concerning the development of DoD policy and legislative initiatives.

4.1. **Organization.**

4.1.1. The Department of Defense and Air Force Energy Programs management structure is illustrated in Attachment 1.

4.1.1.1. The Headquarters USAF Energy Management Steering Group (EMSG) provides top-level management oversight of progress made in implementing the strategies for achieving the target goals for FY05 and FY10. Members of the EMSG include representatives from HQ USAF/XOO, HQ

USAF/ILEXO, HQ USAF/ILGM, HQ SAF/FMBO, HQ SAF/PA, HQ AFCESA/CESM, and the MAJCOMs. The EMSG will convene semiannually to review energy consumption reports to OSD and to review the progress toward meeting the facility and mobility energy use goals. USAF/ILE will develop policy for meeting mandated facility energy goals. USAF/ILG will develop policy for meeting mobility energy goals.

4.2. **Responsibilities. This section is divided into three sections; for mobility energy (ILG), for facility energy (ILE); and mutual responsibilities.**

4.2.1. **HQ USAF. The Deputy Chief of Staff, Installations and Logistics** (AF/IL) is the overall manager of the Air Force energy program. AF/IL is the agency responsible for developing, reviewing, and coordinating Air Force energy planning from a policy standpoint. Specifically, the Director of Logistics Readiness is the chairperson of the Air Force Energy Management Steering Group (EMSG). In addition, the ILE serves as the facility energy adviser to the Secretary of the Air Force through the Assistant Secretary for Manpower, Reserve Affairs, Installations, and Environment (SAF/IEI).

4.2.1.1. **Director of Logistics Readiness** (AF/ILG)

4.2.1.1.2. Materiel Management Division, Directorate of Logistics Readiness (AF/ILGM). The Material Management Division functions as the office responsible for Air Force Fuels Energy Policy. AF/ILGM is the coordinating office for all fuels matters in the Air Force and provides fuel planning and management support to the Secretary of the Air Force and the Air Force Chief of Staff. Additionally, this office is responsible for cradle to grave maintenance and management of the Air Force vehicle and vehicular equipment fleet, all associated environmental matters, and chairs the Alternatively Fueled Vehicle Policy Working Group (AFVPWG), made of functional representatives throughout the Air Staff. The AFVPWG is responsible for developing specific guidance promulgating an Air Force alternative fueled vehicle program.

4.2.1.1.3. The Distribution & Traffic Management Division, (AF/ILGD) is the policy focal point for all issues concerning official use of Air Force vehicles.

4.2.1.1.4. The Material Management Division (AF/ILGM) is responsible for oversight of Air Force vehicle procurement. The Air Force is aggressively acquiring Alternatively Fueled Vehicles (AFVs) to reduce our Nation's dependence on imported oil and protect our environment as required by the Energy Policy Act of 1992 and the Clean Air Act of 1990. AFVs will be assigned on a priority basis to units located in non-attainment areas as defined by the Clean Air Act. The Advanced Power Technology Office (APTO) was established to coordinate MAJCOM efforts to comply with legislative requirements regarding AFV's. AF//ILGM//ILEV participate in the Interagency Committee on Alternative Fuels and Low Emission Vehicles.

4.2.1.1.5. DESC is responsible for reporting mobility fuel consumption

4.2.1.2. **The Office of the Civil Engineer** (AF/ILE).

4.2.1.2.1. AF/ILE manages the facility energy management program. The focal point within AF/ILE for all Air Staff actions relating to installation energy is the Readiness and Installation Support Division (AF/ILEX). This division provides facility energy planning and management support to the Secretary of the Air Force and the Air Force chief of staff. AF/ILEX will monitor legislation and policy guidance, issue broad policy directives, and advocate for resources, as appropriate. HQ AFCESA/CES will oversee all aspects of execution; develop plans for implementing new guidance in coordination with AF/ILEX and the MAJCOM/CE's. HQ AFCESA will monitor progress against mandated goals; determine periodic reporting requirements; and manage the Annual Energy Report to Congress. AF/ILEC oversees the

execution of the Energy Conservation Investment Program with HQ AFCESA providing assistance. HQ AFCESA will be the focal point for the day-to-day energy and water conservation concerns and has the authority to communicate directly with the staffs of OSD and SAF on matters pertaining to facility energy and water conservation, as well as, solicit information to answer congressional and other inquiries. All congressional responses will be routed through AF/ILEX. The Energy Policy Act of 1992 requires energy managers at all installations to be trained. HQ AFCESA and the Air Force Institute of Technology Civil Engineering School conduct frequent training seminars to meet this requirement. Additionally, AFCESA will centrally track and provide the guidance to the bases and commands, develop guidelines, provide the legislative requirements and include the data from the awarded ESPCs in the annual energy report. The ETL 04-12, Energy Savings Performance Contracting is mandatory. All installations will use this document when working in the ESPC program.

4.2.1.2.2. Energy Management Reporting. Facility energy consumption is monitored through the Defense Utility Energy Reporting System (DUERS). The DUERS is the primary database for facility energy analysis. Analysis of the DUERS data helps the DOD managers to make energy policy, look at energy-related problems and anticipate those requiring early action, provide reporting to DOE, and measure energy management achievements. Facility energy consumption is reported separately from mobility energy consumption:

4.2.1.2.3. The DUERS gives information on the consumption and cost of energy resources (electricity, fuel oil, propane and LPG, natural gas, coal, purchased steam and water) used to furnish utility services to DOD installations. These data elements are collected by HQ AFCESA/CESM and forwarded to ODUSD (IA&I) (E&E) after coordination with AF/ILEXO each year in the Annual Energy Report. DUERS reports are forwarded by each base/wing to HQ AFCESA through MAJCOMs. MAJCOMs are responsible for ensuring the accuracy of the report, monitoring energy use regularly, and providing feedback to subordinate units as required.

4.2.1.2.4. HQ AFCESA has developed the Air Force Water Conservation Guidebook, which is designed to significantly reduce the workload bases face in complying with the federal water conservation goal. This guidebook greatly simplifies the process by allowing bases to use assumptions and estimates in place of hard data. It also provides templates, examples, equations, and other information to make the process much easier. The guidebook walks users through the development of a Water Management Plan. The guidebook is available at http://www.afcesa.af.mil/ces/cesc/water/cesc_watercons.asp.

4.2.1.3. **Mutual Responsibilities.**

4.2.1.3.1. MAJCOMs/FOAs/DRUs. MAJCOMs/FOAs/DRUs develop plans to support or supplement Air Force goals and strategies, execute programs (includes programming funding to support the various energy program mandates), evaluate energy usage of subordinate units, provide inputs required by HQ USAF for annual reports and nominate their most successful units for energy awards.

4.2.1.3.2. Installations. Installations should develop plans to support or supplement Air Force and MAJCOM goals/strategies, execute those plans, measure and evaluate their base energy usage, provide inputs required by their MAJCOM for annual reports, and nominate their most successful people and units for energy awards

4.2.1.3.3. Energy Management Steering Group (EMSG). Each level of command - HQ USAF, MAJCOM, and base is responsible for establishing an EMSG composed of representatives from all major energy managing activities, including civil engineering, public affairs, transportation operations, budget, aircraft maintenance, logistics, and fuels management. The steering group provides a forum for coordinating energy activities and for conducting the Air Force energy program. EMSGs at MAJCOM's

and bases should be chaired by the commander or vice commander. EMSG should meet at a minimum of semi-annually.

4.2.1.3.4. Energy Program Reviews. Air Force energy program progress is reviewed with representatives from the military departments and other DOD agencies. The annual DOD energy program review, manages ECIP Projects, and coordinates certain presidential report requirements into the DOD PPBS. Each year, OSD and the military components conduct a formal energy program review. In preparation for this review, the Air Force updates its energy management planning and summarizes progress toward meeting the goals.

4.2.1.3.5. Energy Awareness Program. The energy awareness program goal is to encourage all personnel to use energy efficiently, both at work and at home, without degrading operational readiness, and to recognize and reward excellence in energy conservation. The program reflects a long-term commitment by the Air Force to expose individuals to the energy climate, educate them about the direct relationship between energy and national security, and maintain their interest in conserving energy by continuously publicizing energy goals and achievements.

4.2.1.3.6. Energy Conservation Award. The Air Force uses the Department of Energy (DOE) Awards Program to recognize its people and organizations for their accomplishments in the energy and water conservation area. HQ AFCESA/CESM issues a nomination call each year following release of DOE nomination criteria.

4.2.1.3.7. Energy Security. Each base EMSG is required to determine the installation's vulnerability to energy interruptions. They should assure the base's existing plans, covered in AFI 10-210, *Civil Engineer Contingency Response Planning;* AFI 10-2501, *Full Spectrum Threat Response (FSTR) Planning and Operations*; FSTR Plan 10-2, and AFI 32-2001 *Fire Protection*, cover these vulnerabilities. Each base EMSG should annually review all plans to ensure a description of actions to be taken to minimize prospective impacts in response to a serious interruption of energy supply that may occur at the local, state, or national level. (The plans must address vulnerabilities of Air Force missions and facilities due to natural disasters, major system failures, energy supply constraint disputes, and terrorist sabotage.). These plans should identify types of energy critical to base operation, energy suppliers, alternative sources and procedures for obtaining emergency supply. The assessment includes an indication of the extent of the delay that can be allowed for critical programs and operations as well as points at which the primary base mission can no longer be accomplished. Control and feedback mechanisms for managing an energy emergency situation should be summarized in these plans. Base requirements should be coordinated with the local utilities and community disaster plans.

//SIGNED, 28 Dec 04//
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//SIGNED, 10 Dec 04//
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